=> index bioscience medicine

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE, AQUASCI, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS, CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DISSABS, DRUGB, DRUGMONOG2, DRUGU, EMBAL, EMBASE, ...' ENTERED AT 14:58:02 ON 07 SEP 2006

71 FILES IN THE FILE LIST IN STNINDEX

=> S ((erythronate-4-phosphate (w) dehydrogenase)or (4-phosphoerythronate (w) dehydrogenase)or (phosphoerythonate (w) dehydrogenase) or pdx#)

5 FILE ADISCTI
3 FILE ADISINSIGHT
1 FILE ADISNEWS
32 FILE AGRICOLA
2 FILE ANABSTR
5 FILE ANTE
1 FILE AQUALINE
13 FILE AQUASCI
57 FILE BIOENG
1097 FILE BIOSIS
129 FILE BIOTECHABS
129 FILE BIOTECHDS
318 FILE BIOTECHNO
54 FILE CABA
1790 FILE CAPLUS
7 FILE CEABA-VTB
29 FILE CIN
152 FILE CONFSCI
4 FILE CROPU
3 FILE DDFB
59 FILE DDFU
1279 FILE DGENE
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3 FILE DRUGB
6 FILE DRUGMONOG2
76 FILE DRUGU
17 FILE EMBAL
833 FILE EMBASE
655 FILE ESBIOBASE
30 FILES SEARCHED...
6 FILE FROSTI
11 FILE FSTA
9498 FILE GENBANK
1 FILE HEALSAFE
190 FILE IFIPAT
13 FILE IMSDRUGNEWS
3 FILE IMSPRODUCT
5 FILE IMSRESEARCH
75 FILE JICST-EPLUS
301 FILE LIFESCI
816 FILE MEDLINE
198 FILE NTIS
485 FILE PASCAL
2 FILE PHAR
3 FILE PHARMAML
17 FILE PHIN
1096 FILE PROMT
1 FILE PROUSDDR
1356 FILE SCISEARCH
373 FILE TOXCENTER
1488 FILE USPATFULL
163 FILE USPAT2
64 FILES SEARCHED...
1 FILE WATER
176 FILE WPIDS
3 FILE WPIFV

176 FILE WPINDEX
3 FILE IPA
1 FILE NAPRALERT
145 FILE NLDB

58 FILES HAVE ONE OR MORE ANSWERS, 71 FILES SEARCHED IN STNINDEX

L1 QUE ((ERYTHRONATE-4-PHOSPHATE (W) DEHYDROGENASE) OR (4-PHOSPHOERYTHRONATE (W) DEHYDROGENASE) OR (PHOSPHOERYTHONATE (W) DEHYDROGENASE) OR PDX#)

=> d rank
F1 9498 GENBANK
F2 1790 CAPLUS
F3 1488 USPATFULL
F4 1356 SCISEARCH
F5 1279 DGENE
F6 1097 BIOSIS
F7 1096 PROMT
F8 833 EMBASE
F9 816 MEDLINE
F10 655 ESBIOBASE
F11 485 PASCAL
F12 373 TOXCENTER
F13 318 BIOTECHNO
F14 301 LIFESCI
F15 198 NTIS
F16 190 IFIPAT
F17 176 WPIDS
F18 176 WPINDEX
F19 163 USPAT2
F20 152 CONFSCI
F21 145 NLDB
F22 129 BIOTECHABS
F23 129 BIOTECHDS
F24 82 DISSABS
F25 76 DRUGU

=> file f2-f4, f6-f14, f17

FILE 'CAPLUS' ENTERED AT 15:01:10 ON 07 SEP 2006
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=> S L1
L2 10784 L1

=> S (gene or sequence or polynucleotide) (s) L2
11 FILES SEARCHED...
L3 3545 (GENE OR SEQUENCE OR POLYNUCLEOTIDE) (S) L2

=> S (express? or clone or recombinant) (s) L3
11 FILES SEARCHED...
L4 2162 (EXPRESS? OR CLONE OR RECOMBINANT) (S) L3

=> S vitamin (s) L4
L5 51 VITAMIN (S) L4

=> S B6 (s) L5
L6 23 B6 (S) L5

=> S sinorhizobium (s) L5
L7 2 SINORHIZOBIUM (S) L5

=> dup rem L5
PROCESSING COMPLETED FOR L5
L8 36 DUP REM L5 (15 DUPLICATES REMOVED)

=> d ibib abs L8 1-36

L8 ANSWER 1 OF 36 USPATFULL on STN
ACCESSION NUMBER: 2006:233750 USPATFULL <<LOGINID::20060907>>
TITLE: Genetic testing for male factor infertility
INVENTOR(S): Dix, David Jacob, Raleigh, NC, UNITED STATES
Krawetz, Stephen A., Detroit, MI, UNITED STATES
Miller, David, Belmont Grove, UNITED KINGDOM
PATENT ASSIGNEE(S): U.S. EPA, Washington, DC, UNITED STATES (U.S. corporation)
Wayne State University, Detroit, MI, UNITED STATES (U.S. corporation)
University of Leeds, Belmont Grove, UNITED KINGDOM (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2006199204	A1	20060907
APPLICATION INFO.:	US 2006-357423	A1	20060221 (11)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2002-264321, filed on 4 Oct 2002, ABANDONED

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-327525P	20011005 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: BROWDY AND NEIMARK, P.L.L.C., 624 NINTH STREET, NW, SUITE 300, WASHINGTON, DC, 20001-5303, US
NUMBER OF CLAIMS: 10
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 11 Drawing Page(s)
LINE COUNT: 12611
AB RNA in sperm can be used as a diagnostic to distinguish between normal

and affected individuals. A list of specific diagnostic transcripts is provided which is compared with transcripts obtained from the sperm of a subject. Correlation between the two transcripts is used to identify normal sperm or affected sperm. Addition, genetic testing for male infertility or damage to spermatozoa is accomplished by providing a microarray of DNA probes with a sample of spermatozoa to determine the mRNA fingerprints of the sample, and comparing the mRNA fingerprints of the sample with the mRNA fingerprints of normal fertile male spermatozoa.

L8 ANSWER 2 OF 36 USPATFULL on STN
ACCESSION NUMBER: 2006:166987 USPATFULL <<LOGINID::20060907>>
TITLE: Atherosclerotic phenotype determinative genes and methods for using the same
INVENTOR(S): West, Mike, Durham, NC, UNITED STATES
Nevins, Joseph R., Chapel Hill, NC, UNITED STATES
Goldschmidt, Pascal, Chapel Hill, NC, UNITED STATES
Seo, David, Durham, NC, UNITED STATES
PATENT ASSIGNEE(S): Duke University Office of Science and Technology, Durham, NC, UNITED STATES, 27750 (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2006141493	A1	20060629
APPLICATION INFO.:	US 2005-198782	A1	20050804 (11)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2002-291885, filed on 12 Nov 2002, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-337709P	20011109 (60)
	US 2002-374547P	20020423 (60)
	US 2002-420784P	20021024 (60)
	US 2002-421043P	20021025 (60)
	US 2002-424680P	20021108 (60)
	US 2004-651462P	20040804 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: FISH & NEAVE IP GROUP, ROPES & GRAY LLP, ONE INTERNATIONAL PLACE, BOSTON, MA, 02110-2624, US
NUMBER OF CLAIMS: 19
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 13 Drawing Page(s)
LINE COUNT: 13825
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Genes whose expression is correlated with and determinant of an atherosclerotic phenotype are provided. Genes whose expression is correlated with and determinant of an atherosclerotic susceptibility are also provided. Also provided are methods of using the subject atherosclerotic determinant genes or the atherosclerotic susceptibility genes in diagnosis and treatment methods, as well as drug screening methods. In addition, reagents and kits thereof that find use in practicing the subject methods are provided. Also provided are methods of determining whether a gene is correlated with a disease phenotype, where correlation is determined using at least one parameter that is not expression level and is preferably determined using a binary prediction tree analysis.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 3 OF 36 USPATFULL on STN
ACCESSION NUMBER: 2006:80402 USPATFULL <<LOGINID::20060907>>
TITLE: Synthetic nucleic acid molecule compositions and methods of preparation
INVENTOR(S): Wood, Keith V., Mt. Horeb, WI, UNITED STATES
Wood, Monika G., Mt. Horeb, WI, UNITED STATES
Almond, Brian, Fitchburg, WI, UNITED STATES
Paguio, Aileen, Madison, WI, UNITED STATES
Fan, Frank, Madison, WI, UNITED STATES

NUMBER KIND DATE
---------- ------ --------
PATENT INFORMATION: US 2006068395 A1 20060330
APPLICATION INFO.: US 2004-943508 A1 20040917 (10)
DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, 1600 TCF TOWER, 121 SOUTH EIGHT STREET, MINNEAPOLIS, MN, 55402, US
NUMBER OF CLAIMS: 69
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 2 Drawing Page(s)
LINE COUNT: 9488
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A method to prepare synthetic nucleic acid molecules having reduced inappropriate or unintended transcriptional characteristics when expressed in a particular host cell.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 4 OF 36 USPATFULL on STN
ACCESSION NUMBER: 2006:40723 USPATFULL <<LOGINID::20060907>>
TITLE: Stem cell libraries
INVENTOR(S): Zhang, Hongbing, Albany, CA, UNITED STATES
Williams, Lewis Thomas, Mill Valley, CA, UNITED STATES
Chu, Keting, Woodside, CA, UNITED STATES
Cohen, Fred, San Francisco, CA, UNITED STATES

NUMBER KIND DATE
---------- ------ --------
PATENT INFORMATION: US 2006035373 A1 20060216
APPLICATION INFO.: US 2004-3840 A1 20041206 (11)
RELATED APPLN. INFO.: Division of Ser. No. US 2005-516605, filed on 3 Jun 2005, PENDING A 371 of International Ser. No. WO 2003-US34811, filed on 31 Oct 2003

NUMBER DATE
---------- --------
PRIORITY INFORMATION: US 2002-423041P 20021101 (60)
US 2003-454576P 20030313 (60)
DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, LLP, 901 NEW YORK AVENUE, NW, WASHINGTON, DC, 20001-4413, US
NUMBER OF CLAIMS: 54
EXEMPLARY CLAIM: 1-123
NUMBER OF DRAWINGS: 3 Drawing Page(s)
LINE COUNT: 3195
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A stem cell library is created by genetically modifying stem cells with nucleic acids encoding polypeptides which can promote stem cell differentiation into specific cell types. Alternatively, the stem cell library is exposed to an externally added factor that promotes stem cell differentiation into a desired cell line, e.g., neuronal or muscle. The library is used to determine the effect of the encoded protein on the differentiation process. The library is also used to produce nucleic acids for insertion into embryonic stem cells to produce transfected embryonic stem cells. The nucleic acids are inserted into a locus that permits widespread expression of the encoded polypeptide in animals produced from blastocysts that incorporate the transfected cells. Non-human chimeric animals produced by combining blastocysts derived from animal models of human disease and embryonic stem cells transfected with molecules from the library provide an in vivo system for therapeutic design.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 5 OF 36 USPATFULL on STN
ACCESSION NUMBER: 2006:34191 USPATFULL <<LOGINID::20060907>>
TITLE: Method for the early detection of pancreatic cancer and

other gastrointestinal disease conditions
INVENTOR(S): Bauer, A. Robert JR., Summit Park, UT, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2006029960	A1	20060209
APPLICATION INFO.:	US 2005-195497	A1	20050801 (11)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2004-938696, filed on 11 Sep 2004, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	US 2004-598477P	20040803 (60)
	US 2004-607088P	20040905 (60)
	US 2005-664842P	20050325 (60)
	US 2005-676670P	20050430 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: THORPE NORTH & WESTERN, LLP., 8180 SOUTH 700 EAST, SUITE 200, SANDY, UT, 84070, US
NUMBER OF CLAIMS: 27
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 8 Drawing Page(s)
LINE COUNT: 1776
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A method for the early diagnosis of pancreatic cancer and other gastrointestinal disease compares the gene expression patterns from a patient's peripheral blood monocytes-lymphocyte's gene system with either the similar gene expression patterns of a normal person, or with the similar gene expression patterns of a person known to have the condition being screened for. Differences between the patient's gene expression patterns for particular genes and the normal patterns indicates the presence of the condition with the number of differences indicating the probability of the condition. Similarities between the patient's gene expression patterns for those particular genes and the patterns of a person known to have the condition indicates the presence of the condition with the number of similarities indicating the probability of the condition. Particular genes for use in identifying pancreatic cancer are disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 6 OF 36 USPATFULL on STN DUPLICATE 1
ACCESSION NUMBER: 2005:330194 USPATFULL <<LOGINID::20060907>>
TITLE: Methods of use of genes of pyridoxal 5'-phosphate biosynthesis in Bacillus subtilis: avirulent strains for vaccines, and methods for identification of antibacterial agents
INVENTOR(S): Belitsky, Boris R., Swampscott, MA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005287169	A1	20051229
APPLICATION INFO.:	US 2004-869322	A1	20040616 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2003-479331P	20030617 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Sonia K. Guterman, Esq., Lawson & Weitzen, LLP, Suite 345, 88 Black Falcon Avenue, Boston, MA, 02210-2414, US
NUMBER OF CLAIMS: 38
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 4 Drawing Page(s)
LINE COUNT: 1865
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Methods and compositions comprising a pathogenic bacterial strain having a non-reverting mutation in a pdx gene encoding an enzyme involved in pyridoxal-5'-phosphate synthesis are provided, for use in vaccines, and

methods for identification of inhibitors of the enzyme for use as an antibacterial agent are provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 7 OF 36 USPATFULL on STN
ACCESSION NUMBER: 2005:324305 USPATFULL <<LOGINID::20060907>>
TITLE: Methods and kits useful for detecting an alteration in a locus copy number
INVENTOR(S): Halle, David, Efrat, ISRAEL
PATENT ASSIGNEE(S): Trisogen Biotechnology Limited Partnership, Petah-Tikva, ISRAEL (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005282213	A1	20051222
APPLICATION INFO.:	US 2005-179574	A1	20050713 (11)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. WO 2004-IL866, filed on 20 Sep 2004, UNKNOWN

	NUMBER	DATE
PRIORITY INFORMATION:	US 2003-504211P	20030922 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Martin Moynihan, c/o Anthony Castorina, Suite 207, 2001 Jefferson Davis Highway, Arlington, VA, 22202, US
NUMBER OF CLAIMS: 73
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 7 Drawing Page(s)
LINE COUNT: 5026
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A method of identifying an alteration in a locus copy number is provided. The method is effected by determining a methylation state of at least one gene in the locus, wherein a methylation state differing from a predetermined methylation state of the at least one gene is indicative of an alteration in the locus copy number.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 8 OF 36 USPATFULL on STN
ACCESSION NUMBER: 2005:281019 USPATFULL <<LOGINID::20060907>>
TITLE: Stem cell libraries
INVENTOR(S): Zhang, Hongbing, Albany, CA, UNITED STATES
Williams, Lewis Thomas, Mill Valley, CA, UNITED STATES
Chu, Keting, Burlingame, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005244970	A1	20051103
APPLICATION INFO.:	US 2003-516605	A1	20031031 (10)
	WO 2003-US34811		20031031
			20050603 PCT 371 date

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-423041P	20021101 (60)
	US 2003-454576P	20030313 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, LLP, 901 NEW YORK AVENUE, NW, WASHINGTON, DC, 20001-4413, US
NUMBER OF CLAIMS: 241
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 3 Drawing Page(s)
LINE COUNT: 3578
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A stem cell library is created by genetically modifying stem cells with nucleic acids encoding polypeptides which can promote stem cell differentiation into specific cell types. Alternatively, the stem cell

library is exposed to an externally added factor that promotes stem cell differentiation into a desired cell line, e.g., neuronal or muscle. The library is used to determine the effect of the encoded protein on the differentiation process. The library is also used to produce nucleic acids for insertion into embryonic stem cells to produce transfected embryonic stem cells. The nucleic acids are inserted into a locus that permits widespread expression of the encoded polypeptide in animals produced from blastocysts that incorporate the transfected cells. Non-human chimeric animals produced by combining blastocysts derived from animal models of human disease and embryonic stem cells transfected with molecules from the library provide an in vivo system for therapeutic design.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 9 OF 36 USPATFULL on STN
ACCESSION NUMBER: 2005:240500 USPATFULL <<LOGINID::20060907>>
TITLE: Signatures of ER status in breast cancer
INVENTOR(S): Erlander, Mark G., Encinitas, CA, UNITED STATES
Ma, Xiao-Jun, San Diego, CA, UNITED STATES
Wang, Wei, San Marcos, CA, UNITED STATES
Wittliff, James L., Louisville, KY, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005208500	A1	20050922
APPLICATION INFO.:	US 2004-794263	A1	20040304 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2003-451942P	20030304 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834, US
NUMBER OF CLAIMS: 21
EXEMPLARY CLAIM: 1
LINE COUNT: 8789
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention relates to the identification and use of gene expression profiles, or patterns, suitable for identification of populations that are positive and negative for estrogen receptor expression. The gene expression profiles may be embodied in nucleic acid expression, protein expression, or other expression formats, and may be used in the study and/or diagnosis of cells and tissue in breast cancer as well as for the study and/or determination of prognosis of a patient, including breast cancer survival.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 10 OF 36 USPATFULL on STN
ACCESSION NUMBER: 2005:233514 USPATFULL <<LOGINID::20060907>>
TITLE: Methods and apparatuses for diagnosing AML and MDS
INVENTOR(S): Burczynski, Michael E., Swampscott, MA, UNITED STATES
Dorner, Andrew J., Lexington, MA, UNITED STATES
Twine, Natalie C., Goffstown, NH, UNITED STATES
Trepicchio, William L., Andover, MA, UNITED STATES
Stover, Jennifer, Topsfield, MA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005202451	A1	20050915
APPLICATION INFO.:	US 2004-834114	A1	20040429 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2003-466055P	20030429 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: NIXON PEABODY, LLP, 401 9TH STREET, NW, SUITE 900,

WASHINGTON, DC, 20004-2128, US
NUMBER OF CLAIMS: 20
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 3 Drawing Page(s)
LINE COUNT: 8813
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Methods, systems and equipment for diagnosing or monitoring the progression or treatment of AML or MDS. This invention identifies a plurality of AML or MDS disease genes which are differentially expressed in bone marrow cells of AML or MDS patients as compared to disease-free humans. These AML or MDS disease genes can be used as molecular markers for detecting the presence or absence of AML or MDS. These genes can also be used for the early identification of MDS patients who eventually progress to AML.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 11 OF 36 USPATFULL on STN
ACCESSION NUMBER: 2005:189423 USPATFULL <<LOGINID::20060907>>
TITLE: Methods and organisms for production of b6 vitamers
INVENTOR(S): Yocum, R Rogers, Lexington, MA, UNITED STATES
Williams, Mark K., Revere, MA, UNITED STATES
Pero, Janice G., Lexington, MA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005164335	A1	20050728
APPLICATION INFO.:	US 2003-508768	A1	20030321 (10)
	WO 2003-US8880		20030321

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-60367089	20020322
	US 2003-367863P	20020325 (60)
	US 2003-368618P	20020329 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: LAHIVE & COCKFIELD, LLP., 28 STATE STREET, BOSTON, MA, 02109, US
NUMBER OF CLAIMS: 82
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 7 Drawing Page(s)
LINE COUNT: 3019
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention features methods of producing B6 vitamers that involve culturing an organism overexpressing an enzyme that catalyzes a step in the biosynthesis of a B6 vitamer under conditions such that a B6 vitamer is produced. The present invention further features methods of producing B6 vitamers that involve culturing recombinant microorganisms having increased activity of at least one B6 vitamer biosynthetic enzyme, e.g., YaaD or YaaE, or a homologue thereof, or Epd, PdxA, PdxJ, PdxF, PdxB, PdxH, and/or Dxs, or a homologue thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 12 OF 36 USPATFULL on STN
ACCESSION NUMBER: 2005:131264 USPATFULL <<LOGINID::20060907>>
TITLE: Secreted and transmembrane polypeptides and nucleic acids encoding the same
INVENTOR(S): Ashkenazi, Avi J., San Mateo, CA, UNITED STATES
Baker, Kevin P., Damestown, MD, UNITED STATES
Botstein, David, Belmont, CA, UNITED STATES
Desnoyers, Luc, San Francisco, CA, UNITED STATES
Eaton, Dan L., San Rafael, CA, UNITED STATES
Ferrara, Napoleone, San Francisco, CA, UNITED STATES
Fong, Sherman, Alameda, CA, UNITED STATES
Gerber, Hanspeter, San Francisco, CA, UNITED STATES
Gerritsen, Mary E., San Mateo, CA, UNITED STATES
Goddard, Audrey, San Francisco, CA, UNITED STATES
Godowski, Paul J., Hillsborough, CA, UNITED STATES

Grimaldi, J. Christopher, San Francisco, CA, UNITED STATES
Gurney, Austin L., Belmont, CA, UNITED STATES
Kljavin, Ivar J., Lafayette, CA, UNITED STATES
Napier, Mary A., Hillsborough, CA, UNITED STATES
Pan, James, Belmont, CA, UNITED STATES
Paoni, Nicholas F., Belmont, CA, UNITED STATES
Roy, Margaret Ann, San Francisco, CA, UNITED STATES
Stewart, Timothy A., San Francisco, CA, UNITED STATES
Tumas, Daniel, Orinda, CA, UNITED STATES
Watanabe, Colin K., Moraga, CA, UNITED STATES
Williams, P. Mickey, Half Moon Bay, CA, UNITED STATES
Wood, William I., Hillsborough, CA, UNITED STATES
Zhang, Zemin, Foster City, CA, UNITED STATES
PATENT ASSIGNEE(S): Genentech, Inc., South San Francisco, CA, UNITED STATES (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005112725	A1	20050526
APPLICATION INFO.:	US 2004-978255	A1	20041029 (10)

RELATED APPLN. INFO.: Continuation of Ser. No. US 2001-989862, filed on 19 Nov 2001, PENDING Continuation of Ser. No. US 2001-941992, filed on 28 Aug 2001, PENDING Continuation of Ser. No. WO 2000-US8439, filed on 30 Mar 2000, PENDING Continuation-in-part of Ser. No. US 380137, ABANDONED A 371 of International Ser. No. WO 1999-US12252, filed on 2 Jun 1999

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-141037P	19990623 (60)
	US 1998-88810P	19980610 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: HELLER EHRMAN WHITE & MCAULIFFE LLP, 275 MIDDLEFIELD ROAD, MENLO PARK, CO, 94025-3506, US
NUMBER OF CLAIMS: 24
EXEMPLARY CLAIM: 1-118
NUMBER OF DRAWINGS: 330 Drawing Page(s)
LINE COUNT: 38226
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention is directed to novel polypeptides and to nucleic acid molecules encoding those polypeptides. Also provided herein are vectors and host cells comprising those nucleic acid sequences, chimeric polypeptide molecules comprising the polypeptides of the present invention fused to heterologous polypeptide sequences, antibodies which bind to the polypeptides of the present invention and to methods for producing the polypeptides of the present invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 13 OF 36 USPATFULL on STN
ACCESSION NUMBER: 2005:111528 USPATFULL <<LOGINID::20060907>>
TITLE: Breast cancer signatures
INVENTOR(S): Erlander, Mark, Encinitas, CA, UNITED STATES
Ma, Xiao-Jun, San Diego, CA, UNITED STATES
Wang, Wei, San Marcos, CA, UNITED STATES
Wittliff, James L., Louisville, KY, UNITED STATES
PATENT ASSIGNEE(S): Arcturus Bioscience, Inc. University of Louisville (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005095607	A1	20050505
APPLICATION INFO.:	US 2004-795092	A1	20040305 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2003-453006P	20030307 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834, US
NUMBER OF CLAIMS: 23
EXEMPLARY CLAIM: 1-7
NUMBER OF DRAWINGS: 3 Drawing Page(s)
LINE COUNT: 3176
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention relates to the identification and use of gene expression profiles, or patterns, suitable for identification of breast cancer patient populations with different survival outcomes. The gene expression profiles may be embodied in nucleic acid expression, protein expression, or other expression formats, and may be used in the study and/or determination of the prognosis of a patient, including breast cancer survival.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 14 OF 36 Elsevier BIOBASE COPYRIGHT 2006 Elsevier Science B.V. on STN DUPLICATE
ACCESSION NUMBER: 2006175372 ESBIOBASE <<LOGINID::20060907>>
TITLE: Pyridoxine is required for post-embryonic root development and tolerance to osmotic and oxidative stresses
AUTHOR: Chen H.; Xiong L.
CORPORATE SOURCE: L. Xiong, Donald Danforth Plant Science Center, St Louis, MO 63132, United States.
E-mail: lxiong@danforthcenter.org
SOURCE: Plant Journal, (2005), 44/3 (396-408), 42 reference(s)
CODEN: PLJUED ISSN: 0960-7412 E-ISSN: 1365-313X
DOCUMENT TYPE: Journal; Article
COUNTRY: United Kingdom
LANGUAGE: English
SUMMARY LANGUAGE: English
AB Pyridoxine (***vitamin*** B.sub.6) is a cofactor required by numerous enzymes in all cellular organisms. Plants are the major source of ***vitamin*** B .sub.6 for animals, yet the biosynthesis pathway and the function of ***vitamin*** B.sub.6 in plants are not well elucidated. In this study, an Arabidopsis pyridoxine synthase ***gene*** ***PDX1*** was characterized and its in vivo functions were investigated. The ***PDX1*** ***gene*** was ***expressed*** in all plant parts examined and its ***expression*** level was not significantly regulated by abiotic stress or the phytohormone abscisic acid. In roots, ***PDX1*** was highly ***expressed*** in a defined region behind the root tips that undergoes rapid cell division. The ***PDX1*** protein was mainly associated with the plasma membrane and endomembranes, implying a potential involvement of ***vitamin*** B.sub.6 in membrane function. To reveal the in vivo role of ***PDX1*** , Arabidopsis insertional mutants were isolated. Strikingly, the ***pdx1*** knockout mutants were impaired in root growth and early seedling development. The stunted roots resulted from both reduced cell division and elongation. Supplementation of the growth media with pyridoxine or reintroduction of the wild-type ***PDX1*** ***gene*** into the mutants completely restored the mutant growth, demonstrating that ***PDX1*** is required for pyridoxine biosynthesis in planta. In addition to the developmental defects, ***pdx1*** mutants are hypersensitive to osmotic stress and oxidative stress. These mutant seedlings had increased peroxidation of membrane lipids following UV treatment. Our study establishes a critical role of ***vitamin*** B.sub.6 in plant development and stress tolerance and suggests that ***vitamin*** B.sub.6 may represent a new class of antioxidant in plants. .COPYRGT. 2005 Blackwell Publishing Ltd.

L8 ANSWER 15 OF 36 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:292106 CAPLUS <<LOGINID::20060907>>
DOCUMENT NUMBER: 140:320119
TITLE: Vitamin B6 production by Escherichia coli expressing genes for erythrose 4-phosphate dehydrogenase, 1-deoxy-D-xylulose 5-phosphate synthase and pyridoxol

5'-phosphate synthase
INVENTOR(S): Hoshino, Tatsuo; Ichikawa, Keiko; Tazoe, Masaaki
PATENT ASSIGNEE(S): DSM Ip Assets B.V., Neth.
SOURCE: PCT Int. Appl., 20 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004029271	A1	20040408	WO 2003-EP10403	20030918
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003267385	A1	20040419	AU 2003-267385	20030918
EP 1543139	A1	20050622	EP 2003-748056	20030918
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1685051	A	20051019	CN 2003-822614	20030918

PRIORITY APPLN. INFO.: EP 2002-21623 A 20020927
WO 2003-EP10403 W 20030918

AB Disclosed is a recombinant microorganism being capable of producing vitamin B6, wherein said microorganism carries extra genes which code for an enzyme combination selected from: erythrose 4-phosphate dehydrogenase and 1-deoxy-D-xylulose 5-phosphate synthase; erythrose 4-phosphate dehydrogenase and pyridoxol 5'-phosphate synthase; and erythrose 4-phosphate dehydrogenase, 1-deoxy-D-xylulose 5-phosphate synthase and pyridoxol 5'-phosphate synthase. Thus, Escherichia coli AT1024 was transformed with plasmid pKK-epd, pVK-pdxJ, and pSTV-dxs, which harbor the genes for erythrose 4-phosphate dehydrogenase, pyridoxol 5'-phosphate synthase, and 1-deoxy-D-xylulose 5-phosphate synthase resp. The recombinant strain produced 78.5 mg/L vitamin B6 compared to 2.0 mg/L for the nontransformed strain.

L8 ANSWER 16 OF 36 USPATFULL on STN
ACCESSION NUMBER: 2004:258641 USPATFULL <<LOGINID::20060907>>
TITLE: COATED PARTICLES, METHODS OF MAKING AND USING
INVENTOR(S): Anderson, David, Colonial Heights, VA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004201117	A1	20041014
	US 6989195	B2	20060124

APPLICATION INFO.: US 2003-624498 A1 20030723 (10)
RELATED APPLN. INFO.: Continuation of Ser. No. US 2002-170237, filed on 13 Jun 2002, GRANTED, Pat. No. US 6638621
Continuation-in-part of Ser. No. US 2000-297997, filed on 16 Aug 2000, GRANTED, Pat. No. US 6482517
Continuation-in-part of Ser. No. WO 1998-US18639, filed on 8 Sep 1998, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	WO 1998-US18639	19980908
	US 1997-58309P	19970909 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: WHITHAM, CURTIS & CHRISTOFFERSON, P.C., 11491 SUNSET HILLS ROAD, SUITE 340, RESTON, VA, 20190
NUMBER OF CLAIMS: 67
EXEMPLARY CLAIM: CLM-1-107

NUMBER OF DRAWINGS: 11 Drawing Page(s)
LINE COUNT: 5395
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A particle coated with a nonlamellar material such as a nonlamellar crystalline material, a nonlamellar amorphous material, or a nonlamellar semi-crystalline material includes an internal matrix core having at least one a nanostructured liquid phase, or at least on nanostructured liquid crystalline phase or a combination of the two is used for the delivery of active agents such as pharmaceuticals, nutrients, pesticides, etc. The coated particle can be fabricated by a variety of different techniques where the exterior coating is a nonlamellar material such as a nonlamellar crystalline material, a nonlamellar amorphous material, or a nonlamellar semi-crystalline material

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 17 OF 36 USPATFULL on STN
ACCESSION NUMBER: 2004:76562 USPATFULL <<LOGINID::20060907>>
TITLE: Diagnosis and prognosis of breast cancer patients
INVENTOR(S): Dai, HongYue, Bothell, WA, UNITED STATES
He, Yudong, Kirkland, WA, UNITED STATES
Linsley, Peter S., Seattle, WA, UNITED STATES
Mao, Mao, Kirkland, WA, UNITED STATES
Roberts, Christopher J., Seattle, WA, UNITED STATES
Van't Veer, Laura Johanna, Amsterdam, NETHERLANDS
Van de Vijver, Marc J., Amsterdam, NETHERLANDS
Bernards, Rene, Abcoude, NETHERLANDS
Hart, A.A. M., Castricum, NETHERLANDS

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004058340	A1	20040325
APPLICATION INFO.:	US 2003-342887	A1	20030115 (10)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2002-172118, filed on 14 Jun 2002, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-298918P	20010618 (60)
	US 2002-380710P	20020514 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: JONES DAY, 222 EAST 41ST STREET, NEW YORK, NY, 10017
NUMBER OF CLAIMS: 99
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 46 Drawing Page(s)
LINE COUNT: 9260
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to genetic markers whose expression is correlated with breast cancer. Specifically, the invention provides sets of markers whose expression patterns can be used to differentiate clinical conditions associated with breast cancer, such as the presence or absence of the estrogen receptor ESR1, and BRCA1 and sporadic tumors, and to provide information on the likelihood of tumor distant metastases within five years of initial diagnosis. The invention relates to methods of using these markers to distinguish these conditions. The invention also provides methods of classifying and treating patients based on prognosis. The invention also relates to kits containing ready-to-use microarrays and computer software for data analysis using the diagnostic, prognostic and statistical methods disclosed herein.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 18 OF 36 USPATFULL on STN
ACCESSION NUMBER: 2004:66006 USPATFULL <<LOGINID::20060907>>
TITLE: DNA array sequence selection
INVENTOR(S): Lorenz, Matthias, Bethesda, MD, United States
PATENT ASSIGNEE(S): The United States of America as represented by the Department of Health and Human Services, Washington, DC, United States (U.S. government)

NUMBER KIND DATE

PATENT INFORMATION: US 6706867 B1 20040316
APPLICATION INFO.: US 2000-741238 20001219 (9)
DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Horlick, Kenneth R.
ASSISTANT EXAMINER: Wilder, Cynthia
LEGAL REPRESENTATIVE: Leydig, Voit & Mayer, Ltd.
NUMBER OF CLAIMS: 8
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 3 Drawing Figure(s); 29 Drawing Page(s)
LINE COUNT: 23532
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides methods and compositions for the construction of custom cDNA microarrays. In particular, the methods involve the selection of relevant clusters based on knowledge and expression patterns using public database information and the identification of the best representative cDNA clones within the selected cluster. The methods facilitate the construction of custom microarrays suitable for use in any biotechnological art. In preferred embodiments, the present invention provides the the ImmunoChip.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 19 OF 36 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN
ACCESSION NUMBER: 2004-316138 [29] WPIDS
DOC. NO. CPI: C2004-119955
TITLE: Novel mutant of ***recombinant*** Sinorhizobium microorganism capable of producing ***vitamin*** B6 having ***recombinant*** plasmid with ***pdxJ*** ***gene*** that acquired histidine requirement of glycine resistance, or its combination.
DERWENT CLASS: B03 D13 D16 E13
INVENTOR(S): HOSHINO, T; ICHIKAWA, K; NAGATANI, Y; TAZOE, M
PATENT ASSIGNEE(S): (STAM) DSM IP ASSETS BV
COUNTRY COUNT: 107
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2004029270	A2	20040408 (200429)*		EN	19
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
AU 2003267372	A1	20040419 (200462)			
EP 1543138	A2	20050622 (200541)		EN	
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR					
CN 1685052	A	20051019 (200612)			
EP 1543138	B1	20060802 (200651)		EN	
R: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR					

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2004029270	A2	WO 2003-EP10296	20030916
AU 2003267372	A1	AU 2003-267372	20030916
EP 1543138	A2	EP 2003-748042	20030916
		WO 2003-EP10296	20030916
CN 1685052	A	CN 2003-823010	20030916
EP 1543138	B1	EP 2003-748042	20030916
		WO 2003-EP10296	20030916

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2003267372	A1 Based on	WO 2004029270
EP 1543138	A2 Based on	WO 2004029270
EP 1543138	B1 Based on	WO 2004029270

PRIORITY APPLN. INFO: EP 2002-21601 20020927
AN 2004-316138 [29] WPIDS
AB WO2004029270 A UPAB: 20040505
NOVELTY - A mutant of a ***recombinant*** Sinorhizobium microorganism capable of producing ***vitamin*** B6 having a ***recombinant*** plasmid with ***pdxJ*** ***gene*** that acquired histidine requirement of glycine resistance, or its combination, is new.
USE - (I) is useful for producing vitamin B6 which involves cultivating (I) in a cultivation medium at a pH of 5.0 to 9.0, at a temperature of 10-40 deg. C for 1-15 days under aerobic conditions, and isolating vitamin B6 from the cultivation medium. The microorganism is Sinorhizobium meliloti PY-EGC1 (claimed).
Dwg.0/1

L8 ANSWER 20 OF 36 LIFESCI COPYRIGHT 2006 CSA on STN
ACCESSION NUMBER: 2004:102713 LIFESCI <<LOGINID::20060907>>
TITLE: The loss of circadian PAR bZip transcription factors results in epilepsy
AUTHOR: Gachon, F.; Fonjallaz, P.; Damiola, F.; Gos, P.; Kodama, T.; Zakany, J.; Duboule, D.; Petit, B.; Tafti, M.; Schibler, U.
CORPORATE SOURCE: Department of Molecular Biology, Department of Zoology and Animal Biology, National Center of Competence Research (NCCR) Frontiers in Genetics, Sciences III, University of Geneva, CH-1211 Geneva 4, Switzerland; E-mail: ueli.schibler@molbio.unige.ch
SOURCE: Genes & Development [Genes Dev.], (20040615) vol. 18, no. 12, pp. 1397-1412.
ISSN: 0890-9369.
DOCUMENT TYPE: Journal
FILE SEGMENT: N; G
LANGUAGE: English
SUMMARY LANGUAGE: English
AB DBP (albumin D-site-binding protein), HLF (hepatic leukemia factor), and TEF (thyrotroph embryonic factor) are the three members of the PAR bZip (proline and acidic amino acid-rich basic leucine zipper) transcription factor family. All three of these transcriptional regulatory proteins accumulate with robust circadian rhythms in tissues with high amplitudes of clock ***gene*** ***expression*** , such as the suprachiasmatic nucleus (SCN) and the liver. However, they are ***expressed*** at nearly invariable levels in most brain regions, in which clock ***gene*** ***expression*** only cycles with low amplitude. Here we show that mice deficient for all three PAR bZip proteins are highly susceptible to generalized spontaneous and audiogenic epilepsies that frequently are lethal. Transcriptome profiling revealed pyridoxal kinase (***Pdxk***) as a target ***gene*** of PAR bZip proteins in both liver and brain. Pyridoxal kinase converts ***vitamin*** B6 derivatives into pyridoxal phosphate (PLP), the coenzyme of many enzymes involved in amino acid and neurotransmitter metabolism. PAR bZip-deficient mice show decreased brain levels of PLP, serotonin, and dopamine, and such changes have previously been reported to cause epilepsies in other systems. Hence, the ***expression*** of some clock-controlled genes, such as ***Pdxk*** , may have to remain within narrow limits in the brain. This could explain why the circadian oscillator has evolved to generate only low-amplitude cycles in most brain regions.

L8 ANSWER 21 OF 36 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:937352 CAPLUS <<LOGINID::20060907>>
DOCUMENT NUMBER: 142:214098
TITLE: The pyridoxal kinase gene TaPdxK from wheat complements vitamin B6 synthesis-defective Escherichia

coli
AUTHOR(S): Wang, Huabo; Liu, Dongcheng; Liu, Chunguang; Zhang, Aimin
CORPORATE SOURCE: Institute of Genetics and Developmental Biology, ChaoYang District, State Key Laboratory of Plant Cell and Chromosome Engineering, Chinese Academy of Sciences, Beijing, 100101, Peop. Rep. China
SOURCE: Journal of Plant Physiology (2004), 161(9), 1053-1060
CODEN: JPPHEY; ISSN: 0176-1617
PUBLISHER: Elsevier GmbH
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Pyridoxal kinase (EC 2.7.1.35) is a key enzyme in the conversion of vitamin B6 to pyridoxal 5'-phosphate (PLP). PLP is the crucial cofactor required by numerous enzymes involved in amino acids metab. Recently, studies with Arabidopsis salt overly sensitive 4 mutants demonstrated that pyridoxal kinase is a novel salt tolerance determinant important for the regulation of Na+ and K+ homeostasis in plants. We describe here the TaPdxK gene which encodes a pyridoxal kinase, cloned from Triticum aestivum by RACE PCR method. The putative amino acid sequence of TaPdxK is 78% identical to Arabidopsis AtSOS4. Southern anal. suggests that there are at least two copies of pyridoxal kinase genes in wheat genome. The expression of TaPdxK cDNAs complements an Escherichia coli mutant defective in pyridoxal kinase. TaPdxK transcripts were detected in roots, shoots, spikes and anthers by RT-PCR anal. TaPdxK expression level was not regulated by salt, ABA, and osmotic stress.
REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 22 OF 36 Elsevier BIOBASE COPYRIGHT 2006 Elsevier Science B.V. on STN
ACCESSION NUMBER: 2004276151 ESBIOBASE <<LOGINID::20060907>>
TITLE: Control of differentiation-induced calbindin-D.sub.9.sub.k gene expression in Caco-2 cells by cdx-2 and HNF-1.alpha.
AUTHOR: Wang L.; Klopot A.; Freund J.-N.; Dowling L.N.; Krasinski S.B.; Fleet J.C.
CORPORATE SOURCE: J.C. Fleet, Purdue Univ., 700 West State St., West Lafayette, IN 47907-2059, United States.
E-mail: fleet@purdue.edu
SOURCE: American Journal of Physiology - Gastrointestinal and Liver Physiology, (2004), 287/5 50-5 (G943-G953), 54 reference(s)
CODEN: APGPDF ISSN: 0193-1857
DOCUMENT TYPE: Journal; Article
COUNTRY: United States
LANGUAGE: English
SUMMARY LANGUAGE: English
AB Calbindin D.sub.9.sub.k (CaBP) is critical for intestinal calcium absorption; its in vivo ***expression*** is restricted to differentiated enterocytes of the small intestine. Our goal was to identify factors controlling the transcriptional regulation of this ***gene*** in the human intestine. Both the natural ***gene*** and a 4600-bp promoter construct were strongly regulated by differentiation (> 100-fold) but not by treatment with 1,25(OH).sub.2 ***vitamin*** D (<2-fold) in the Caco-2 ***clone*** TC7. Deletion-mutation studies revealed that conserved promoter sequences for cdx-2 (at -3158 bp) and hepatocyte nuclear factor (HNF)-1 (at -3131 and at -98 bp) combined to control CaBP ***expression*** during differentiation. Other putative response elements were not important for CaBP regulation in TC7 cells (CCAAT enhancer binding protein, pancreatic duodenal homebox-1 (***pdx*** -1), a proximal cdx-2 element). Mutation of the distal HNF-1 site had the greatest impact on CaBP ***gene*** ***expression*** through disruption of HNF-1.alpha. binding; both basal and differentiation-mediated CaBP ***expression*** was reduced by 80%. In contrast, mutation of the distal cdx-2 element reduced only basal CaBP ***expression*** . Whereas a 60% reduction of CaBP mRNA in the duodenum of HNF-1.alpha. null mice confirmed the physiological importance of HNF-1.alpha. for CaBP ***gene*** regulation, additional studies showed that maximal CaBP ***expression*** requires the presence of

both HNF-1.alpha. and cdx-2. Our data suggest that cdx-2 is a permissive factor that influences basal CaBP ***expression*** in enterocytes and that HNF-1.alpha. modulates CaBP ***gene*** ***expression*** during cellular differentiation.

L8 ANSWER 23 OF 36 Elsevier BIOBASE COPYRIGHT 2006 Elsevier Science B.V. on STN
ACCESSION NUMBER: 2004104234 ESBIOBASE <<LOGINID::20060907>>
TITLE: Functional complementation between the PDX1 vitamin B.sub.6 biosynthetic gene of Cercospora nicotianae and pdxJ of Escherichia coli
AUTHOR: Wetzel D.K.; Ehrenshaft M.; Denslow S.A.; Daub M.E.
CORPORATE SOURCE: M.E. Daub, Department of Botany, North Carolina State University, Raleigh, NC 27695-7612, United States.
E-mail: margaret_daub@ncsu.edu
SOURCE: FEBS Letters, (23 APR 2004), 564/1-2 (143-146), 35 reference(s)
CODEN: FEBLAL ISSN: 0014-5793
PUBLISHER ITEM IDENT.: S0014579304003291
DOCUMENT TYPE: Journal; Article
COUNTRY: Netherlands
LANGUAGE: English
SUMMARY LANGUAGE: English
AB The pathway for de novo ***vitamin*** B.sub.6 biosynthesis has been characterized in Escherichia coli, however plants, fungi, archaebacteria, and most bacteria utilize an alternative pathway. Two unique genes of the alternative pathway, ***PDX1*** and ***PDX2*** , have been described. ***PDX2*** encodes a glutaminase, however the enzymatic function of the product encoded by ***PDX1*** is not known. We conducted reciprocal transformation experiments to determine if there was functional homology between the E. coli ***pdxA*** and ***pdxJ*** genes and ***PDX1*** of Cercospora nicotianae. Although ***expression*** of ***pdxJ*** and ***pdxA*** in C. nicotianae ***pdx1*** mutants, either separately or together, failed to complement the pyridoxine mutation in this fungus, ***expression*** of ***PDX1*** restored pyridoxine prototrophy to the E. coli ***pdxJ*** mutant. ***Expression*** of ***PDX1*** in the E. coli ***pdxA*** mutant restored very limited ability to grow on medium lacking pyridoxine. We conclude that the ***PDX1*** ***gene*** of the alternative B.sub.6 pathway encodes a protein responsible for synthesis of the pyridoxine ring. .COPYRGT. 2004 Federation of European Biochemical Societies. Published by Elsevier B.V. All rights reserved.

L8 ANSWER 24 OF 36 Elsevier BIOBASE COPYRIGHT 2006 Elsevier Science B.V. on STN DUPLICATE
ACCESSION NUMBER: 2004127657 ESBIOBASE <<LOGINID::20060907>>
TITLE: A highly conserved gene for vitamin B.sub.6 biosynthesis may have consequences for stress and hormone responses in plants
AUTHOR: Graham C.M.; Ehrenshaft M.; Hausner G.; Reid D.M.
CORPORATE SOURCE: D.M. Reid, Department of Biological Sciences, University of Calgary, 2500 University Dr NW, Calgary, Alta. T2N 1N4, Canada.
E-mail: dmreid@ucalgary.ca
SOURCE: Physiologia Plantarum, (2004), 121/1 (8-14), 29 reference(s)
CODEN: PHPLAI ISSN: 0031-9317
DOCUMENT TYPE: Journal; Article
COUNTRY: United Kingdom
LANGUAGE: English
SUMMARY LANGUAGE: English
AB Pyridoxine (***vitamin*** B.sub.6) is not only an essential cofactor in amino acid biosynthesis but has recently been added to the list of potent antioxidants found in plants (Bilski et al., 71: 129-134, 2000). Herein the cloning of a ***gene*** (pvPDX1) from Phaseolus vulgaris that has a high degree of similarity to ***PDX1*** from Cercospora nicotianae is reported. In C. nicotianae, ***PDX1*** is involved in the biosynthesis of pyridoxine as null mutants exhibit pyridoxine auxotrophy (Ehrenshaft et al., Proc Natl Acad Sci USA 96: 9374-9378, 1999). ***Expression*** of pvPDX1 in ***PDX1*** mutants of C.

nicotianae partially complements pyridoxine auxotrophy suggesting that a similar biosynthetic pathway for pyridoxine exists in both plants and fungi. In P. vulgaris, ***expression*** of pvPDX1 was induced by mechanical wounding via a mechanism that is independent of the production of AOS (active oxygen species). Furthermore, whereas the ***expression*** of pvPDX1 in P. vulgaris was up-regulated by treatment with 1-aminocyclopropaite-1-carboxylic acid (ACC) treatment in a time course similar to that observed with wounding, ***expression*** was not consistently regulated by other treatments that caused a similar increase in ethylene production suggesting a more complicated regulatory pathway.

L8 ANSWER 25 OF 36 USPATFULL on STN
ACCESSION NUMBER: 2003:318630 USPATFULL <<LOGINID::20060907>>
TITLE: Diagnosis and prognosis of breast cancer patients
INVENTOR(S): Dai, HongYue, Bothell, WA, UNITED STATES
He, Yudong, Kirkland, WA, UNITED STATES
Linsley, Peter S., Seattle, WA, UNITED STATES
Mao, Mao, Kirkland, WA, UNITED STATES
Roberts, Christopher J., Seattle, WA, UNITED STATES
Van't Veer, Laura Johanna, Amsterdam, NETHERLANDS
Van de Vijver, Marc J., Amsterdam, NETHERLANDS
Bernards, Rene, Abcoude, NETHERLANDS
Hart, A.A. M., Castricum, NETHERLANDS

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003224374	A1	20031204
APPLICATION INFO.:	US 2002-172118	A1	20020614 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-380710P	20020514 (60)
	US 2001-298918P	20010618 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: PENNIE AND EDMONDS, 1155 AVENUE OF THE AMERICAS, NEW YORK, NY, 100362711
NUMBER OF CLAIMS: 60
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 32 Drawing Page(s)
LINE COUNT: 7403
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to genetic markers whose expression is correlated with breast cancer. Specifically, the invention provides sets of markers whose expression patterns can be used to differentiate clinical conditions associated with breast cancer, such as the presence or absence of the estrogen receptor ESR1, and BRCA1 and sporadic tumors, and to provide information on the likelihood of tumor distant metastases within five years of initial diagnosis. The invention relates to methods of using these markers to distinguish these conditions. The invention also relates to kits containing ready-to-use microarrays and computer software for data analysis using the statistical methods disclosed herein.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 26 OF 36 USPATFULL on STN
ACCESSION NUMBER: 2003:120026 USPATFULL <<LOGINID::20060907>>
TITLE: Identification of modulatory molecules using inducible promoters
INVENTOR(S): Brown, Steven J., San Diego, CA, UNITED STATES
Dunnington, Damien J., San Diego, CA, UNITED STATES
Clark, Imran, San Diego, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003082511	A1	20030501
APPLICATION INFO.:	US 2001-965201	A1	20010925 (9)

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: David B. Waller & Associates, 5677 Oberlin Drive, Suit 214, San Diego, CA, 92121
NUMBER OF CLAIMS: 52
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 8 Drawing Page(s)
LINE COUNT: 5526
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Methods for identifying an ion channel modulator, a target membrane receptor modulator molecule, and other modulatory molecules are disclosed, as well as cells and vectors for use in those methods. A polynucleotide encoding target is provided in a cell under control of an inducible promoter, and candidate modulatory molecules are contacted with the cell after induction of the promoter to ascertain whether a change in a measurable physiological parameter occurs as a result of the candidate modulatory molecule.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 27 OF 36 USPATFULL on STN
ACCESSION NUMBER: 2003:99695 USPATFULL <<LOGINID::20060907>>
TITLE: Use of streptococcus pneumoniae acyl carrier protein synthase crystal structure in diagnostics, antimicrobial drug design, and biosensors
INVENTOR(S): Chirgadze, Nicholas Yuri, Indianapolis, IN, UNITED STATES
Briggs, Stephen Lyle, Indianapolis, IN, UNITED STATES
Zhao, Genshi, Indianapolis, IN, UNITED STATES
McAllister, Kelly Ann, Indianapolis, IN, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003068802	A1	20030410
APPLICATION INFO.:	US 2001-897645	A1	20010629 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-215577P	20000630 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: ELI LILLY AND COMPANY, PATENT DIVISION, P.O. BOX 6288, INDIANAPOLIS, IN, 46206-6288
NUMBER OF CLAIMS: 31
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 9 Drawing Page(s)
LINE COUNT: 14574
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Provided are methods of purifying and crystallizing Streptococcus pneumoniae acyl carrier protein synthase (AcpS) enzyme, crystals of AcpS, the use of such crystals to determine the three-dimensional structure of AcpS enzymes, and the three-dimensional structure of AcpS. The three-dimensional crystal structure of AcpS can be used in medical diagnostics to produce antibodies that permit detection of Streptococcus pneumoniae both in vitro and in vivo. The three-dimensional crystal structure of AcpS can also be used in pharmaceutical discovery and development to identify and design compounds that inhibit the biochemical activity of AcpS enzyme in bacteria. Inhibitory compounds identified in this way can be optimized by structure/activity studies to develop antibacterial pharmaceutical compounds useful for the prevention or treatment of bacterial infections.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 28 OF 36 USPATFULL on STN
ACCESSION NUMBER: 2002:213684 USPATFULL <<LOGINID::20060907>>
TITLE: Drug screening system
INVENTOR(S): Terada, Naohiro, Gainesville, FL, UNITED STATES
Hamazaki, Takashi, Gainesville, FL, UNITED STATES

	NUMBER	KIND	DATE

PATENT INFORMATION: US 2002115059 A1 20020822
APPLICATION INFO.: US 2001-45721 A1 20011026 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-243549P	20001026 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Stanley A. Kim, Akerman, Senterfitt & Eidson, P.A., 222 Lakeview Avenue, Suite 400, P.O. Box 3188, West Palm Beach, FL, 33402-3188
NUMBER OF CLAIMS: 20
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 7 Drawing Page(s)
LINE COUNT: 804
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A method for identifying a drug candidate for promoting tissue-specific differentiation of a stem cell includes the steps of: providing a library of test substances and an in vitro culture of stem cells divided into at least two subcultures; contacting one of the subcultures with the first test substance from the library and a second subculture with a second test substance from the library; culturing the subcultures under conditions that would promote tissue-specific differentiation of the stem cells if an agent that promoted tissue-specific differentiation was in contact with the stem cells; and analyzing the cells in the subcultures for increased tissue specific gene expression.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 29 OF 36 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:634531 CAPLUS <<LOGINID::20060907>>
DOCUMENT NUMBER: 136:258038
TITLE: Analysis of the chromosome sequence of the legume symbiont Sinorhizobium meliloti strain 1021
AUTHOR(S): Capela, Delphine; Barloy-Hubler, Frederique; Gouzy, Jerome; Bothe, Gordana; Ampe, Frederic; Batut, Jacques; Boistard, Pierre; Becker, Anke; Boutry, Marc; Cadieu, Edouard; Dreano, Stephane; Gloux, Stephanie; Godrie, Therese; Goffeau, Andre; Kahn, Daniel; Kiss, Erno; Lelaure, Valerie; Masuy, David; Pohl, Thomas; Portetelle, Daniel; Puhler, Alfred; Purnelle, Benedicte; Ramsperger, Ulf; Renard, Clotilde; Thebault, Patricia; Vandenbol, Micheline; Weidner, Stefan; Galibert, Francis
CORPORATE SOURCE: Laboratoire de Biologie Moleculaire des Relations Plantes-Microorganismes, Unite Mixte de Recherche (UMR) 215 Centre National de la Recherche Scientifique (CNRS), Institut National de la Recherche Agronomique, Chemin, Tolosan, F-31326, Fr.
SOURCE: Proceedings of the National Academy of Sciences of the United States of America (2001), 98(17), 9877-9882
CODEN: PNASA6; ISSN: 0027-8424
PUBLISHER: National Academy of Sciences
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Sinorhizobium meliloti is an .alpha.-proteobacterium that forms agronomically important N2-fixing root nodules in legumes. We report here the complete sequence of the largest constituent of its genome, a 62.7% GC-rich 3654,135-bp circular chromosome. Annotation allowed assignment of a function to 59% of the 3341 predicted protein-coding ORFs, the rest exhibiting partial, weak, or no similarity with any known sequence. Unexpectedly, the level of reiteration within this replicon is low, with only two genes duplicated with more than 90% nucleotide sequence identity, transposon elements accounting for 2.2% of the sequence, and a few hundred short repeated palindromic motifs (RIME1, RIME2, and C) widespread over the chromosome. Three regions with a significantly lower GC content are most likely of external origin. Detailed annotation revealed that this replicon contains all housekeeping genes except two essential genes that are located on pSymB. Amino acid/peptide transport and degrdn. and sugar

metab. appear as two major features of the S. meliloti chromosome. The presence in this replicon of a large no. of nucleotide cyclases with a peculiar structure, as well as of genes homologous to virulence determinants of animal and plant pathogens, opens perspectives in the study of this bacterium both as a free-living soil microorganism and as a plant symbiont.
REFERENCE COUNT: 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 30 OF 36 Elsevier BIOBASE COPYRIGHT 2006 Elsevier Science B.V. on STN DUPLICATE
ACCESSION NUMBER: 2001195284 ESBIOBASE <<LOGINID::20060907>>
TITLE: The pdx genetic marker adjacent to the chloramphenicol biosynthesis gene cluster in Streptomyces venezuelae ISP5230: Functional characterization
AUTHOR: Magarvey N.; He J.; Aidoo K.A.; Vining L.C.
CORPORATE SOURCE: L.C. Vining, Department of Biology, Dalhousie University, Halifax, NS B3H 4J1, Canada.
E-mail: Leo.Vining@Dal.Ca
SOURCE: Microbiology, (2001), 147/8 (2103-2112), 53 reference(s)
CODEN: MROBEO ISSN: 1350-0872
DOCUMENT TYPE: Journal; Article
COUNTRY: United Kingdom
LANGUAGE: English
SUMMARY LANGUAGE: English
AB The ***pdx*** -4 mutation in Streptomyces venezuelae ISP5230 confers a growth requirement for pyridoxal (***pdx***) and is a marker for the genetically mapped cluster of genes associated with chloramphenicol biosynthesis. A ***gene*** regulating salvage synthesis of ***vitamin*** B6 cofactors in S. venezuelae was cloned by transforming a ***pdx*** -4 mutant host with the plasmid vector pDQ101 carrying a library of wild-type genomic DNA fragments, and by selecting for complementation of the host's ***pdx*** requirement. However, the corresponding replicative plasmid could not be isolated. Southern hybridizations and transduction analysis indicated that the complementing plasmid had integrated into the chromosome; after excision by a second crossover, the plasmid failed to propagate. To avoid loss of the ***recombinant*** vector, a ***pdx*** -dependent Streptomyces lividans mutant, KAA1, with a phenotype matching that of S. venezuelae ***pdx*** -4, was isolated for use as the cloning host. Introduction of pIJ702 carrying an S. venezuelae genomic library into S. lividans KAA1, and selection of prototrophic transformants, led to the isolation of a stable ***recombinant*** vector containing a 2.5 kb S. venezuelae DNA fragment that complemented requirements for ***pdx*** in both S. venezuelae and S. lividans mutants. ***Sequence*** analysis of the cloned DNA located an intact ORF with a deduced amino acid ***sequence*** that, in its central and C-terminal regions resembled type-I aminotransferases. The N-terminal region of the cloned DNA fragment aligned closely with distinctive helix-turn-helix motifs found near the N termini of GntR family transcriptional regulators. The overall deduced amino acid ***sequence*** of the cloned DNA showed 73% end-to-end identity to a putative GntR-type regulator cloned in cosmid 6D7 from the Streptomyces coelicolor A3(2) genome. This location is close to that of ***pdxA*** , the first ***pdx*** marker in S. coelicolor A3(2) identified and mapped genetically in Sir David Hopwood's laboratory. The S. venezuelae ***gene*** and S. coelicolor ***pdxA*** are postulated to be homologues regulating ***vitamin*** B6 coenzyme synthesis from ***pdx*** .

L8 ANSWER 31 OF 36 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 5
ACCESSION NUMBER: 1999:532886 CAPLUS <<LOGINID::20060907>>
DOCUMENT NUMBER: 131:307564
TITLE: Factors involved in the duodenal expression of the human calbindin-D9k gene
AUTHOR(S): Barley, Natalie F.; Prathalingam, S. Radhika; Zhi, Pang; Legon, Stephen; Howard, Alison; Walters, Julian R. F.
CORPORATE SOURCE: Gastroenterology Section, Division of Medicine, Imperial College School of Medicine, Hammersmith

Hospital, London, W12 0NN, UK
SOURCE: Biochemical Journal (1999), 341(3), 491-500
CODEN: BIJOAK; ISSN: 0264-6021
PUBLISHER: Portland Press Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Calbindin-D9k is expressed in the cytoplasm of intestinal cells, where it is crit. for dietary calcium absorption. Two striking aspects of the expression of this gene are its vitamin-D dependency and regional differences in expression, with high levels only in duodenum. The authors report studies of the human calbindin-D9k promoter. Differences between the reported sequences of the human calbindin-D9k promoter were first clarified before undertaking a functional anal. of this sequence. Studies of the rat gene have indicated that several transcription factors, including the caudal-related homeobox factor (CDX-2), hepatic nuclear factor-4 and CCAAT-enhancer-binding protein .alpha. (C/EBP.alpha.), could interact with elements in the promoter. Although these elements are conserved in the human gene, the authors show here that their intestinal distribution makes them unlikely to be crit. pos. factors. The calbindin-D9k gene contains multiple potential binding sites for homeobox transcription factors; one of these, known as IPF-1 or PDX-1, co-localizes in the intestine with calbindin-D9k. The authors show in gel-shift assays that the ***sequence*** within a putative ***vitamin*** -D-response element in the human calbindin-D9k promoter can bind ***expressed*** IPF-1/ ***PDX*** -1 protein, although the authors cannot confirm binding of the ***vitamin*** -D-receptor protein. CDX-2 binds to the region around the TATA box, as in the rat gene, and may act as a neg. factor in the distal intestine. Transfection studies in Caco-2 and MCF-7 cells with heterologous reporter vectors contg. up to 1303 bp of the gene showed that this functioned as a weak promoter and indicated the presence of suppressor sequences, but did not show vitamin-D responsiveness. This indicates that other elements are also needed for the control of human calbindin-D9k expression.
REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 32 OF 36 Elsevier BIOBASE COPYRIGHT 2006 Elsevier Science B.V.
on STN DUPLICATE
ACCESSION NUMBER: 1998279611 ESBIOBASE <<LOGINID::20060907>>
TITLE: A second gene for Type I signal peptidase in Bradyrhizobium japonicum, sipF, is located near genes involved in RNA processing and cell division
AUTHOR: Bairl A.; Muller P.
CORPORATE SOURCE: P. Muller, FB Biologie-Molekulare Zellbiologie, Philipps Universitat Marburg, Karl-von-Frisch-Strasse, D-35032 Marburg, Germany.
E-mail: muellerp@mailer.uni-marburg.de
SOURCE: Molecular and General Genetics, (1998), 260/4 (346-356), 46 reference(s)
CODEN: MGGEAE ISSN: 0026-8925
DOCUMENT TYPE: Journal; Article
COUNTRY: Germany, Federal Republic of
LANGUAGE: English
SUMMARY LANGUAGE: English
AB The TnphoA-induced Bradyrhizobium japonicum mutant 184 shows slow growth and aberrant colonization of soybean nodules. Using a DNA fragment adjacent to the transposon insertion site as a probe, a 3.4-kb Bg/II fragment of B. japonicum 110spc4 DNA was identified and cloned. ***Sequence*** analysis indicated that two truncated ORFs and three complete ORFs were encoded on this fragment. A database search revealed homologies to several other prokaryotic proteins: ***PdxJ*** (an enzyme involved in ***vitamin*** B.sub.6 biosynthesis), AcpS (acyl carrier protein synthase), Lep or Sip (prokaryotic type I signal peptidase), RNase III (an endoribonuclease which processes double-stranded rRNA precursors and mRNA) and Era (a GTP-binding protein required for cell division). The mutation in strain 184 was found to lie within the signal peptidase ***gene*** , which was designated sipF. Therefore, sipF is located in a region that encodes ***gene*** products involved in posttranscriptional and posttranslational processing processes. By complementation of the lep(ts) E. coli mutant strain IT41

it was demonstrated that sipF indeed encodes a functional signal peptidase, and genetic complementation of B. japonicum mutant 184 by a 2.8-kb SalI fragment indicated that sipF is ***expressed*** from a promoter located directly upstream of sipF. Using a non-polar kanamycin resistance cassette, a specific sipF.sup.- mutant was constructed which exhibited defects in symbiosis similar to those of the original mutant 184.

L8 ANSWER 33 OF 36 BIOTECHNO COPYRIGHT 2006 Elsevier Science B.V. on STN
DUPLICATE
ACCESSION NUMBER: 1992:22105841 BIOTECHNO <<LOGINID::20060907>>
TITLE: Suppression of insertions in the complex pdxJ operon of Escherichia coli K-12 by lon and other mutations
AUTHOR: Lam H.-M.; Tancula E.; Dempsey W.B.; Winkler M.E.
CORPORATE SOURCE: Microbiol./Molec. Genet. Dept., University of Texas, Medical School,Houston, TX 77030, United States.
SOURCE: Journal of Bacteriology, (1992), 174/5 (1554-1567)
CODEN: JOBAAY ISSN: 0021-9193
DOCUMENT TYPE: Journal; Article
COUNTRY: United States
LANGUAGE: English
SUMMARY LANGUAGE: English
AN 1992:22105841 BIOTECHNO <<LOGINID::20060907>>
AB Complementation analyses using minimal ***recombinant*** clones showed that all known ***pdx*** point mutations, which cause pyridoxine (***vitamin*** B.sub.6) or pyridoxal auxotrophy, are located in the ***pdxA*** , ***pdxB*** , serC, ***pdxJ*** , and ***pdxH*** genes. Antibiotic enrichments for chromosomal transposon mutants that require pyridoxine (***vitamin*** B.sub.6) or pyridoxal led to the isolation of insertions in ***pdxA*** , ***pdxB*** , and ***pdxH*** but not in ***pdxJ*** . This observation suggested that ***pdxJ*** , like ***pdxA*** , ***pdxB*** , and serC, might be in a complex operon. To test this hypothesis, we constructed stable insertion mutations in and around ***pdxJ*** in plasmids and forced them into the bacterial chromosome. Physiological properties of the resulting insertion mutants were characterized, and the DNA ***sequence*** of ***pdxJ*** and adjacent regions was determined. These combined approaches led to the following conclusions: (i) ***pdxJ*** is the first ***gene*** in a two- ***gene*** operon that contains a ***gene*** , temporarily designated dpj, essential for Escherichia coli growth; (ii) ***expression*** of the rnc-era-recO and ***pdxJ*** -dpj operons can occur independently, although the ***pdxJ*** -dpj promoter may lie within recO; (iii) ***pdxJ*** encodes a 26,384-Da polypeptide whose coding region is preceded by a ***PDX*** box, and dpj probably encodes a basic, 14,052-Da polypeptide; (iv) mini-Mud insertions in dpj and ***pdxJ*** , which are polar on dpj, severely limit E. coli growth; and (v) three classes of suppressors, including mutations in lon and suppressors of lon, that allow faster growth of ***pdxJ*** ::mini-Mud mutants can be isolated. A model to account for the action of dpj suppressors is presented, and aspects of this genetic analysis are related to the pyridoxal 5'-phosphate biosynthetic pathway.

L8 ANSWER 34 OF 36 BIOTECHNO COPYRIGHT 2006 Elsevier Science B.V. on STN
ACCESSION NUMBER: 1992:22105840 BIOTECHNO <<LOGINID::20060907>>
TITLE: Locating essential Escherichia coli genes by using mini-Tn10 transposons: The pdxJ operon
AUTHOR: Takiff H.E.; Baker T.; Copeland T.; Chen S.-M.; Court D.L.
CORPORATE SOURCE: Molec. Control/Genetics Sec., Lab. of Chromosome Biology, NCI-FCRDC,Frederick, MD 21702, United States.
SOURCE: Journal of Bacteriology, (1992), 174/5 (1544-1553)
CODEN: JOBAAY ISSN: 0021-9193
DOCUMENT TYPE: Journal; Article
COUNTRY: United States
LANGUAGE: English
SUMMARY LANGUAGE: English
AN 1992:22105840 BIOTECHNO <<LOGINID::20060907>>
AB The mini-Tn10 transposon (.DELTA.16.DELTA.17Tn10) confers tetracycline resistance. When inserted between a ***gene*** and its promoter, it

blocks transcription and prevents ***expression*** of that ***gene*** . Tetracycline in the medium induces divergent transcription of the tetA and tetR genes within the transposon, and this transcription extends beyond the transposon in both directions into the bacterial genes. If the mini-Tn10 inserts between an essential bacterial ***gene*** and its promoter, the insertion mutation can cause conditional growth which is dependent on the presence of tetracycline. Two essential genes in adjacent operons of Escherichia coli have been detected by screening for tetracycline dependence among tetracycline-resistant insertion mutants. These essential genes are the era ***gene*** in the rnc operon and the dpj ***gene*** in the adjacent ***pdxJ*** operon. The ***pdxJ*** operon has not been described previously. It consists of two genes, ***pdxJ*** and dpj. Whereas the dpj ***gene*** is essential for E. coli growth in all media tested, ***pdxJ*** is not essential. The ***pdxJ*** ***gene*** encodes a protein required in the biosynthesis of pyridoxine (***vitamin*** B.sub.6).

L8 ANSWER 35 OF 36 BIOTECHNO COPYRIGHT 2006 Elsevier Science B.V. on STN
ACCESSION NUMBER: 1989:19266930 BIOTECHNO <<LOGINID::20060907>>
TITLE: Divergent transcription of pdxB and homology between the pdxB and serA gene products in Escherichia coli K-12
AUTHOR: Schoenlein P.V.; Roa B.B.; Winkler M.E.
CORPORATE SOURCE: Department of Molecular Biology, Northwestern University Medical School, Chicago, IL 60611, United States.
SOURCE: Journal of Bacteriology, (1989), 171/11 (6084-6092)
CODEN: JOBAAY ISSN: 0021-9193
DOCUMENT TYPE: Journal; Article
COUNTRY: United States
LANGUAGE: English
SUMMARY LANGUAGE: English
AN 1989:19266930 BIOTECHNO <<LOGINID::20060907>>
AB We report the DNA ***sequence*** and in vivo transcription start of the ***pdxB*** , which encodes a protein required for de novo biosynthesis of pyridoxine (***vitamin*** B.sub.6). The DNA ***sequence*** confirms results from previous minicell experiments showing that ***pdxB*** encodes a 41-kilodalton polypeptide. RNase T2 mapping of in vivo transcripts and corroborating experiments with promoter ***expression*** vector pKK232-8 demonstrated that the ***pdxB*** promoter shares its -10 region with an overlapping, divergent promoter. Thus, ***pdxB*** must be the first ***gene*** in the complex ***pdxB*** -hisT operon. The steady-state transcription level from these divergent promoters, which probably occlude each other, is approximately equal in bacteria growing in rich medium at 37.degree.C. The divergent transcript could encode a polypeptide whose amino-terminal domain is rich in proline and glutamine residues. Similarity searches of protein data bases revealed a significant number of amino acid matches between the ***pdxB***. ***gene*** product and D-3-phosphoglycerate dehydrogenase, which is encoded by serA and catalyzes the first step in the phosphorylated pathway of serine biosynthesis. FASTA and alignment score analyses indicated that ***PdxB*** and SerA are indeed homologs and share a common ancestor. The amino acid alignment between ***PdxB*** and SerA implies that ***PdxB*** is a 2-hydroxyacid dehydrogenase and suggests possible NAD.sup.+, substrate binding, and active sites of both enzymes. Furthermore, the fact that 4-hydroxythreonine, a probable intermediate in pyridoxine biosynthesis, is structurally related to serine strongly suggests that the ***pdxB*** ***gene*** product is ***erythronate*** - ***4*** - ***phosphate*** ***dehydrogenase*** . The homology between ***PdxB*** and SerA provides considerable support for Jensen's model of enzyme recruitment as the basis for the evolution of different biosynthetic pathways.

L8 ANSWER 36 OF 36 LIFESCI COPYRIGHT 2006 CSA on STN
ACCESSION NUMBER: 89:71006 LIFESCI <<LOGINID::20060907>>
TITLE: Overlap between pdxA and ksgA in the complex pdxA-ksgA-apaG-apaH operon of Escherichia coli K-12.
AUTHOR: Roa, B.B.; Connolly, D.M.; Winkler, M.E.

CORPORATE SOURCE: Dep. Mol. Biol., Northwestern Univ. Med. Sch., Chicago, IL 60611, USA
SOURCE: J. BACTERIOL., (1989) vol. 171, no. 9, pp. 4767-4777.
DOCUMENT TYPE: Journal
FILE SEGMENT: G; N; J
LANGUAGE: English
SUMMARY LANGUAGE: English
AB The authors report that ***pdxA*** , which is required for de novo biosynthesis of pyridoxine (***vitamin*** B sub(6)) and pyridoxal phosphate, belongs to an unusual, multifunctional operon. The ***pdxA***) ***gene*** was cloned in the same 3.5-kilobase BamHI-EcoRI restriction fragment that contains ksgA , which encodes the 16S rRNA modification enzyme m sub(2)@)u6A methyltransferase, and apaH), which encodes diadenosine tetraphosphatase (AppppA hydrolase). Previously, Blanchin-Roland et al. showed that ksgA and apaH form a complex operon. The ***pdxA*** ***gene*** was located on ***recombinant*** plasmids by subcloning, complementation, and insertion mutagenesis, and chromosomal insertions at five positions upstream from ksgA inactivated ***pdxA*** function. DNA ***sequence*** analysis and minicell translation experiments demonstrated that ***pdxA*** encoded a 35.1-kilodalton polypeptide and that the stop codon of ***pdxA*** overlapped the start codon ksgA by 2 nucleotides.

=> d his

L1 QUE ((ERYTHRONATE-4-PHOSPHATE (W) DEHYDROGENASE) OR (4-PHOSPHOE

L2 10784 S L1
L3 3545 S (GENE OR SEQUENCE OR POLYNUCLEOTIDE) (S) L2
L4 2162 S (EXPRESS? OR CLONE OR RECOMBINANT) (S) L3
L5 51 S VITAMIN (S) L4
L6 23 S B6 (S) L5
L7 2 S SINORHIZOBIUM (S) L5
L8 36 DUP REM L5 (15 DUPLICATES REMOVED)

=> log y